

REMARKS

Currently Claims 12-16, 46-56, 70-82 and 84-103 are pending and stand rejected under the Office Action of November 17, 2007. In view of the above amendment and the following remarks, reconsideration is respectfully requested.

Objection

Claim 82 was objected to due to stating a molecular weight range in inverse order. Claim 82 has been amended to match the molecular weight range for the B polymer block stated in the specification at page 9, line 6 as originally filed.

Rejection under 35 USC § 112 and Amendment to Specification

Claims 12 and 46 were rejected under 35 USC § 112, first paragraph for a lack or sufficient written description. Applicants do not agree with the rejection, but have amended the claims to expedite prosecution, while reserving the right to refile claims of original scope in a potential continuation application. Specifically, Applicants have amended each of Claims 12 and 46 to specify that each of the polymeric blocks is selected from the compounds disclosed in the specification, as noted by the Examiner. Attention is also directed to the specification at pages 8 and 9, for example, in which different structural forms and modifications of the listed compounds are disclosed, which are intended to be encompassed by the amended claims. Although Claims 70 and 92 were not rejected on these grounds, Claims 70 and 92 have likewise been amended to define the A polymer block and to expedite the application. Dependent claims were cancelled or amended to avoid redundancy in view of these amendments.

Claims 80 and 82 were also rejected, because the recited molecular weight range of “500 to 20,000” was not disclosed in the specification. Noting that the claims as filed form part of the specification, Applicants have amended the specification at pages 8 and 9 for consistency with the claimed ranges, thereby correcting an obvious error in the specification. In view of this

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amendment and the amendment of Claim 82 discussed above, Applicants submit that this rejection has also been overcome.

Rejection under 35 USC § 103

All claims stand rejected under 35 USC § 103 based on the hypothetical combination of US Patent 6,346,274 to Koll with US Patent 5,702,717 to Cha. Applicants respectfully traverse this rejection, and submit that while a combination of these references did not render the claims as originally filed obvious, it is even more apparent that they do not render obvious the claims as amended above.

Independent Claims 12, 46, 70 and 92, as amended, are directed to different aspects of an ABA triblock copolymer including a B block mid-segment and two A block end segments. As amended, the A block is a poly(alkylene oxide) selected from poly(ethylene oxide), poly(tetramethylene oxide) and poly(tetrahydrofuran), and the B block is a poly(hydroxyalkanoate) selected from poly[(R)-3-hydroxybutyrate]; poly[(R)-4-hydroxybutyrate], poly[(R)-3-hydroxyvalerate], poly[(R)-3-hydroxybutyrate]-co-Poly[(R)-3-hydroxyvalerate], poly[(R)-3-hydroxyhexanoate], Poly[(R)-3-hydroxyheptanoate], (S) enantiomers of each of such (R) enantiomers, racemic mixtures of such (S) and (R) enantiomers, and mixtures thereof.

In contrast, Koll is directed to an ABA triblock copolymer in which the A block is a polymer of lactic and glycolic acid and the B block is a polyethylene glycol chain. Thus while in the instant claimed invention (as reflected in amended Claims 12, 46, 70 and 92), the mid-segment or B block is a poly(hydroxyalkanoate), in Koll the mid-segment is PEG. And while in the instant Claimed invention the end segments or A blocks are specified poly(alkylene oxide)s, in Koll the end segments are polymers of lactic and glycolic acid. It appears from the Office Action that the inclusion of a poly(alkylene oxide) in both polymers was a point of similarity. It

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is believed that this interpretation was based on a read of the claims as originally filed covering the inclusion of any polyester as the A block. This interpretation should no longer be an issue in view of the amendment of the claims above specifying that the poly(alkylene oxide) is selected from poly(ethylene oxide), poly(tetramethylene oxide) and poly(tetrahydrofuran). It should be apparent that the ABA copolymer disclosed by Koll is very different from that claimed. Koll includes a poly(alkylene oxide), PEG, as *the mid-segment or B block*, while the instant invention of claims includes poly(alkylene oxide)s selected from enumerated examples as *the end-segments or B blocks*. Claim 47 is similarly directed to a process for synthesizing an ABA triblock copolymer with poly(alkylene oxide) end segments and a poly(hydroxyalkanoate) mid-segment.

The Office Action looks to Cha for the disclosure of a poly(hydroxyalkanoate). However, substitution of the center or B block of Koll as suggested in the Office Action would still not result in the structure of the ABA copolymers claimed in the amended Claims for the reasons discussed above. One would have to change both the A blocks and the B blocks of Koll to arrive at the claimed invention, in effect wholly erasing the structure of Koll and starting anew.

Other significant distinctions between Koll, whether or not combined with Cha, and the present invention are also noted. For example, with respect to the drug deliver systems of Claim 12, cyclodextrin is used as a complexing agent to form a hydrogel from the ABA block copolymer. By way of example, and without limitation, it is noted on page 12 of the specification that the hydrogels suitably include between 1% to 20% by weight cyclodextrin, preferably at least 5% by weight. In contrast, Koll discloses cyclodextrin as one of a potential number of additives to form microparticles from the polymer disclosed therein. Koll, Column 3, lines 56-67. Koll is not looking to form a self assembling gel using sufficient cyclodextrin as a

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complexing agent, but instead forms microparticles, presumably using very different quantities of cyclodextrin.

As an additional distinction, Applicants note that the synthesis method of claim 47 is not present in either of the disclosed references.

For all of the above reasons, Applicants respectfully submit that the obviousness rejection has been overcome.

Summary

In view of the above amendment and remarks, Applicants respectfully submit that Claims 12, 15, 46-56, 70-75, 77-82 and 84-103 are in condition for allowance. The Examiner is invited to telephone the undersigned attorney should there be any remaining issues.

Respectfully Submitted,

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